

CO-OPERATIVE LEARNING AND INTERCULTURAL EDUCATION. RESEARCH-ACTION IN ELEMENTARY SCHOOLS¹

María José Díaz-Aguado² and María Teresa Andrés³
Complutense University of Madrid

This research is the continuation of three previous experimental studies in interethnic elementary education contexts in which the effects of the programme were confirmed with a control group. The aim of this work is to further the understanding of the process generated by these programmes (studying teachers' and pupils' evaluations of them) and analyse their effectiveness as a function of age and different ethnic and cultural minorities. One of the most significant results of the intervention programmes and the teacher training model concerns their effectiveness for developing tolerance in both pupils and teachers. Changes observed in pupils as a result of the intervention vary according to age and/or the level of intolerance expressed initially, and are particularly significant in relation to the gypsy minority (which initially suffered the most rejection) and around the age of 8, an age at which especially relevant changes in social understanding usually occur.

La investigación continúa tres trabajos experimentales realizados con anterioridad en contextos interétnicos de educación primaria en los que se verificó el programa con grupo de control. En esta investigación se pretende avanzar en la comprensión del proceso generado por dichos programas (estudiando la representación que de él tienen los profesores y alumnos que participan), analizar su eficacia en función del curso y en relación a diferentes minorías étnicas y culturales. Los resultados obtenidos reflejan que uno de los efectos más significativos de los programas de intervención y del modelo de formación de profesores a partir del cual se aplicaron es su eficacia para desarrollar la tolerancia tanto en los alumnos como en los profesores. Los cambios que se observan en los alumnos después de la intervención varían en función del curso en el que se aplican y/o del nivel de intolerancia manifestado al principio, y resultan especialmente significativos en relación a la minoría gitana (que sufría inicialmente el mayor rechazo) y, en torno a los 8 años, edad en la que se producen cambios en la comprensión social especialmente significativos.

The original Spanish version of this paper has been previously published in *Psicología Educativa*, 1999, Vol. 5, No 2, 141-200

¹ This research, together with its theoretical bases presented in the previous article, won the Rafael Burgaleta Prize for Psychology in 1998, awarded by the Spanish Psychological Association in Madrid. It was made possible by a grant from the Centre for Educational Research and Documentation (Ministry of Education and Science) in 1994.

² Professor of Psychology of Education at the Universidad Complutense, Madrid.

³ Researcher in the Psychology Faculty of the Universidad Complutense, Madrid.

The following were also involved in the research:

CPR ADVISOR: Manuela García, Fidel Hernández.

RESEARCHERS: Belén Martínez, Pilar Royo, Lucía Guzmán, Gema Martín.

TEACHERS: Antonio Heras, Emma Rodríguez, M^a Rosario Tudela, Justa Prado, M^a Consuelo Martín, M^a Ascensión Pardiñas; Nicolás García, Tomás de Paz, M^a Cruz Pérez, Margarita Jiménez, M^a Dolores Crehuet, José Delgado, Teresa Guijarro, M^a Carmen Núñez, Montserrat Olmo, Inmaculada Recio, M^a José Rodríguez, Julia Coll, Arturo Marín, Teresa Ingelmo.

SCHOOLS: Islas Filipinas, Nuestra Señora de Montserrat, Enrique Granados.

Translator's note: The Spanish word *payo*, universally employed to refer to non-gypsies, is left in the original language throughout the text.

Correspondence concerning this article should be addressed to María José Díaz-Aguado, Universidad Complutense de Madrid, Facultad de Psicología, Dpto. Psicología de la Educación, Campus de Somosaguas, 28023 Madrid, Spain. E-mail: psevo21@sis.ucm.es

INTRODUCTION

In order to properly interpret the objectives and results of this research it is essential to bear in mind that it represents the continuation of five previous studies on the subject, through which we have been able to confirm the effectiveness of two important educational innovations on which the programme presented here is also based:

1. *The transformation of educational interaction through procedures of co-operative learning and discussion among classmates, grouped in heterogeneous teams.* This transformation signifies a considerable increase in pupils' involvement in their own learning, and maximum distribution of academic and interactional opportunities among them.
2. *The incorporation of content and material designed specifically for developing tolerance (intercultural content, content related to disablement, racism, etc.), applied using the methodology described in the previous paragraph.*

In a first research project, supported by the CIDE (Díaz-Aguado and Baraja, 1993), the innovations mentioned above were applied by a researcher (psycholo-

gist) to second-year elementary school pupils. Comparison of the changes produced in the 10 experimental classrooms with the control group demonstrated their effectiveness for favouring: 1) tolerance in both groups –gypsies and non-gypsies– at all levels (cognitive, affective and behavioural); 2) more satisfactory inter-ethnic interaction recorded in controlled situations (filmed on video); 3) general attitude towards classmates and learning, with notable results in motivation for the subject in which the co-operative learning component was introduced (mathematics); 4) considerable increases in feelings of happiness in all pupils and in academic self-concept of gypsy children.

A second study, presented as a doctoral thesis (Baraja, 1993), and carried out in parallel with the above-mentioned one, demonstrated the effectiveness of the intervention model for developing tolerance (at cognitive, affective and behavioural levels) in pre-adolescent pupils (fifth year), in whom interactional difficulties related to ethnic prejudices tend to be more resistant to change.

Analysis of the changes produced in the two studies summarised above reflects the existence of serious difficulties for teachers to take on the procedures of the intervention programme as their own. Similar difficulties have been found in other research on educational innovation programmes, even where they include training of teachers as a basic component of the programme (Kohlberg, 1980). To make progress towards overcoming these difficulties and understanding the processes that allow their explanation was one of the main objectives of a third project, carried out with the collaboration of the Education and Science Ministry, which confirmed the effectiveness of the programme applied wholly by teachers (Díaz-Aguado, 1992; Díaz-Aguado, Martínez Arias and Baraja, 1992) that normally work with disadvantaged pupils in inter-ethnic contexts, in second and fifth-year primary. The following conclusions were drawn:

- 1) The programme applied by the teachers is even more effective than the programme applied by experimenters for developing tolerance in all its components (cognitive, affective and behavioural).
- 2) When the programme is applied by teachers there is a significant improvement in the social status (popularity among classmates) of children from the minority ethnic group. The greater effectiveness of the teacher in this respect may be attributable to the profound transformation of the structure of the class implied.
- 3) In certain conditions the programme has highly significant effects on general motivation towards learning,

on the relationship with the teacher and on pupils' self-concept. The interpretation of these effects supports the appropriateness of the joint participation of several teachers in the intervention.

In the fourth project, carried out with the collaboration of the ONCE (Spanish National Organisation for the Blind), the above-mentioned components were adapted to develop the so-called *Programmes to assist school integration of children with special needs*. The experimental study carried out in 20 elementary school classrooms confirmed the effectiveness of co-operative learning and discussion between classmates on problems resulting from disability (Díaz-Aguado, Royo and Baraja, 1994) for: 1) favouring improved and more relativist understanding of differences and of satisfaction with integrated education; 2) improving self-concept and helping to overcome the pessimistic bias initially applied by some pupils to their situation; 3) improving interaction between pupils with special needs and their classmates; and 4) improving attitudes towards integration that children perceive in teachers and parents.

The fifth experimental study was carried out in nine high schools representing the different areas of Madrid. This research included, in addition to intercultural content and material, content related to combating violence, respect for human rights and democracy. Comparison of the changes produced in the experimental classrooms (in which the programme was applied) and the control classrooms demonstrated its effectiveness for favouring (Díaz-Aguado, Royo, Segura and Andrés, 1996), in adolescents:

- 1) The development of tolerance in all its components with regard to what adolescents think, what they feel and their preparedness to interact with persons and groups towards whom intolerant attitudes had previously been detected.
- 2) A decrease in the risk of exercising or suffering violence, through: a) recognising its destructive nature not only for the most direct victims but for society in general, including the aggressors; and b) rejecting violence as a means of resolving conflicts and developing a disposition for effective alternatives (reflection, communication, negotiation).
- 3) The development of the ability to adopt perspectives and the understanding of human rights, together with their use as basic reference criteria for making decisions in situations of moral conflict.

The results in general allowed us, moreover, to confirm the effectiveness of the intervention programme for both primary prevention, with students that initially presented

no particular problems in this regard, and secondary prevention, with adolescents considered initially to be in situations of risk (having already begun to manifest highly intolerant attitudes).

High School teachers' descriptions of their experiences in the application of the programmes showed that the best applications, from their point of view, were characterised by: 1) the involvement of creative adaptations of the procedures or materials initially proposed; and 2) close collaboration between several teachers from the same school, all applying the same activity to the same group of pupils.

In spite of the above, teachers appeared to have some difficulty finding time to prepare the programmes together, with the teacher training sessions often being the only time they were able to do so, even for those working in the same school. Hence, the need to actively promote such collaboration and to check the possible effectiveness of carrying out part of the training course in the teachers' own schools. This was the objective of a final study carried out in high schools (Díaz-Aguado, Royo, Segura and Andrés, 1996), which confirmed the appropriateness of holding training sessions for teachers in each school for favouring their collaboration in the development of the programmes.

The research presented here follows the research-action methodology, used with good results in the studies mentioned above (Díaz-Aguado, Martínez Arias and Baraja, 1992; Díaz-Aguado and Baraja, 1993; Díaz-Aguado, Royo and Baraja, 1994; Díaz-Aguado, Royo, Segura and Andrés, 1996), whose aim is to make progress with regard to: a) rigorous understanding of its object of study; and b) the design and testing of programmes for improving its methodology, so that they can be used by professionals that normally work in educational contexts. It is therefore necessary: 1) to check the effectiveness of the intervention programmes in natural teaching conditions; 2) for the intervention to be applied by those who normally work in the educational contexts in which the intervention is to take place (teachers); 3) to include as a basic component of the programmes the training of the teachers who will carry out the intervention; 4) to assess the results through multiple procedures, thus enabling an understanding of the process by which the programmes achieve their effects (beyond the mere verification of hypotheses) and the conditions and limits of these effects. This can be achieved by combining experimental procedures (assessing the effectiveness of the programmes with the traditional design, which includes comparison with control groups) and other procedures that allow a better understanding

of the adaptation of the programmes to different conditions and their qualitative evaluation.

OBJECTIVES

The objective of the work presented here is not so much to verify the effectiveness of the intervention programme –an objective already covered by the three previous studies carried out in inter-ethnic primary school classes– as to further the understanding of the process and conditions through which its effects are achieved. To this end, the methodology employed in this research is similar to that developed from the 1970s in the *application of case analysis to the assessment of educational innovation programmes* (Parlett and Hamilton, 1977; Stake, 1978; Walker, 1980; House, 1980; Stenhouse, 1985), with which it shares the following characteristics:

- 1) Its principal objective is to *improve understanding of the process* generated by the application of the programmes. The aim is not so much to ascertain whether or not the programmes are effective (the objective of our previous work), as to understand their nature.
- 2) *The representation and evaluation of the programme* (procedures, units, materials, etc.) of those involved acquires especial importance. Assessment becomes focused on the descriptions and ratings of the process and its effects by those participating in the programmes, integrating different perspectives: that of the researchers, that of the teachers and that of the pupils.
- 3) It attempts to serve as a reference for future applications, and thus makes a thorough analysis of a small number of cases: including quite detailed and specific descriptions of the process introduced by the innovations, with special attention being given to the way decisions were made in critical situations and the subjective perception of change from different perspectives. It acts as a kind of selective mirror of the events, explanations and definitions of what occurs on applying the programme in certain conditions. Thus, case analysis becomes the examination of an example in action; moving the presentation of the information toward the perspective of the professionals that may apply it in the future, helping them to identify the relationship between their educational practice and that of the psychologists, teachers and pupils participating in the case under analysis.

The three previous experimental studies in inter-ethnic elementary classrooms (second-year and fifth-year) confirmed the effectiveness of the intervention programme

studied here by comparing the changes observed in participating pupils with those observed in a non-participant control group. Various types of measure were used to assess these changes: standardised questionnaires, semi-structured interviews and observations (Díaz-Aguado and Baraja, 1993; Baraja, 1993; Díaz-Aguado, Martínez Arias and Baraja, 1992). In these studies it was not possible to compare, however, the relative effectiveness in the different age groups, nor the pupils' and teachers' impressions of the innovations, of themselves and of others when the programmes were applied. In line with the general objective of furthering the understanding of these processes and their optimisation, the following objectives were set for this research:

- 1) To analyse the effectiveness of the intervention programmes in conditions different from those previously studied (carrying out the teacher training in the schools themselves), and when an entire school participates in their application.
- 2) To bring teachers' perspective into line with that of researchers in psychology of education, so that they gain a better understanding of the diversity of pupils and of how to adapt educational methods to this diversity, and improve their educational practice using instruments similar to those used by researchers, in order to: gain a better understanding of educational reality, analyse the variables affecting it and design and apply intervention procedures that help to improve this reality in the direction of the objectives proposed.
- 3) To analyse whether the programmes are equally effective in the different age groups of primary education, or whether, on the contrary, their effectiveness depends on the school year or grade to which they are applied.
- 4) To further understanding of the psychological process and the conditions through which the programmes achieve their effects, paying special attention to the co-operative learning procedure, and taking into account the rating of this procedure by the teachers applying it and its influence on pupils' impression of the learning and on the type of relationship they maintain with the teacher.

METHOD

Three schools participated in this study: Islas Filipinas and Enrique Granados (state schools), and Nuestra Señora de Montserrat (private). These were selected according to the following criteria: 1) their pupils belonged to a mixture of ethnic or cultural groups, so that apart from the majority group there were children from

the gypsy minority and from immigrant families; 2) some of their teachers had knowledge of the material on *Education and development of tolerance. Programmes to promote educational interaction in mixed ethnic contexts*, or some of its components; 3) the school had some experience in team projects, in order to facilitate the application of the programme to the school as a whole, which was one of the objectives of this work.

The group of pupils assessed numbered 226 (both sexes), aged 7 to 12 years, and taken from classes ranging from second to sixth year of elementary education. Thirty of these pupils belonged to cultural groups other than the majority group: 15 from the gypsy minority and 15 from immigrant families, nearly all from South America or Africa.

The number of teachers participating in the research was 18, of which 10 were class teachers, 4 support teachers, and the rest teachers of specific subject areas. The teachers themselves selected the classrooms and the curricular areas in which the innovations studied here were carried out; the subjects chosen were: Spanish language, environmental studies, natural sciences (second stage of primary education), mathematics, religious knowledge, art and craft and physical education.

Assessment instruments

The assessment model used includes 3 different situations for data-collection (observation in natural conditions, semi-structured interview and standardised questionnaires) and the following instruments, presented in the Appendix:

- 1) *Scales of behavioural disposition towards other ethnic or cultural groups and identification with one's own ethnic or cultural group.* Four scales were used, validated in previous research, one for each minority group (foreigners and gypsy minority) and two for the majority group (in relation to each minority). Each one of these comprises: 1. A 10-item scale for assessing disposition to interact in activities with members of the other group; 2. A 3-item scale for assessing identification with one's own group. In both cases, Likert-type scales were used, with four levels (*a lot, quite a bit, not much, not at all*).
- 2) *Semi-structured interview on racism and intolerance.* The interview used in this research includes, in addition to the questions and criteria validated in previous studies (on the affective and cognitive components of prejudice), new questions and criteria, prepared specifically for the present study. They are exploratory in nature and designed to assess *identification with one's own group.*

- 3) *Sociometric techniques*. Using the multiple procedure validated in previous studies (nominations, perceptual attributes and scores), these techniques permit us to ascertain: 1) the nature of the interactions between classmates (opportunities for friendship relations between different ethnic and cultural groups, social status of each group, behaviour perceived by classmates, group relationships existing between pupils from different groups); and 2) the characteristics of teacher-pupil interaction through pupils' perception of it. This information is of great heterogeneous groups on which this programme is based.
- 4) *Semi-structured interview on educational interaction*. This interview aims to assess pupils' representation of two dimensions, defined on the basis of this study, referring to: a) co-operative learning; b) relationship with the teacher.
- 5) *Observation in natural conditions*. This was carried out during the teacher training sessions in the same context in which the programme was applied (written reports), and in some classroom sessions in which co-operative learning was applied (filmed on video). In both cases the information obtained from the observations was assessed in a qualitative way.
- 6) *Assessment of the programmes by teachers and advisors*. For this assessment each teacher was interviewed on the application of the programmes and their effects on the pupils.

The instruments for assessing the pupils were applied at two different points in time: before the intervention (pre-treatment assessment) and after the intervention (post-treatment assessment). This assessment was carried out following two different methodologies (collective and individual application), according to the characteristics of the measurement instruments used. Firstly, the collective tests were given to entire classes: Scales of Behavioural Disposition and Ethnic Identification and Sociometric Tests. Individual interviews were conducted with a small number of pupils, selected at random from the majority and minority groups. The interviews applied were the Interview on Educational Interaction and the Interview on Racism and Intolerance, which, in accordance with the nature of the questions asked, were given in that order.

Teacher training model

Research work in the schools was carried out within a framework of training for and with the teachers, incorporated in the present Education Ministry training model through the Teachers' Centres (CPRs). The three scho-

ols participating in this study implemented training systems by means of Seminars and Training Projects in Centres (which also used the seminar format). This approach was ideally suited to teachers adopting the role of researcher with regard to their own teaching activity. Below is a summary of the sequence of training activities carried out in each centre:

- 1) *Initial contact with schools*. In this first session each school was represented by different members of staff. In the Enrique Granados school the interviewer spoke to the Director of Studies; in the Montserrat school to the person in charge of the training project/Primary Co-ordinator and the Teachers' Centre assessor; and in the case of Islas Filipinas to the teaching staff and Teachers' centre assessor. The objectives of the first session were: a) to analyse the points in common between the objectives of the research and those of the training plans of each school; b) to present the research-action methodology and agree on the teachers' role in it; and c) to organise the development of teacher training. It was the responsibility of the contact from school to pass on the information to the others involved, to organise the subsequent phases and to stimulate participation.
- 2) *Presentation of the programmes and their principles to the teachers' team*. The objective of this phase of the training was to provide a theoretical basis for the educational innovations that formed part of the research, and to report on the possibilities developed from previous studies. The implementation of this phase depended on the training mode selected by each school and on teachers' needs and time available. Accordingly: in Islas Filipinas the seminars were organised in weekly sessions of 2 hours throughout the school year (94/95), dealing with theoretical principles, intervention procedures, practical methodology, pupil assessment procedures and design and adaptation of the intervention for different age groups and subject areas; in Enrique Granados the organisation was similar; in the Montserrat school this phase was implemented as an intensive course at the beginning of the year (95/96), before pupils' classes began.
- 3) *Follow-up of and analysis of results*. The objective of this phase of the training was to provide a space and time for joint reflection by teachers and the research team on the adaptation of the programme to each level, area or group of pupils, the difficulties found in the incorporation of the innovations

to everyday practice and the results obtained, stimulating discussion in the teachers' groups and looking for consensus on solutions to the problems arising. During this phase, the seminar sessions helped teachers to reflect on the objectives of education, their own role as educators and the characteristics and needs of their pupils, especially those belonging to cultures other than the majority one. In this way, the contributions of their colleagues helped teachers to improve their expectations with regard to minority and special needs pupils and to increase their own contribution, within the context of school and of their role as educators, to the personal development of these pupils.

- 4) *Incorporation of the innovations in the school's curriculum* and educational projects, with all the necessary adaptations and modifications. This was carried out during the second school year of the programmes' development.

Co-operative learning model

The co-operative learning model employed in this programme has, in general, followed the sequence used in the experimental studies on which it is based (Díaz-Aguado and Baraja, 1993; Baraja, 1993; Díaz-Aguado, Martínez Arias and Baraja, 1992):

- 1) Formation of heterogeneous co-operative learning teams (mixed in terms of ethnic group, gender, achievement...), with the aim of instructing each group member in a given subject, stimulating positive interdependence.
- 2) Development of the ability to co-operate, by means of a process involving: a) creation of an initial scheme; b) explanation of collaboration as a general principle and through specific behaviours that facilitate or hinder it; c) provision of models for facilitating learning through observation; d) provision of practical opportunities; and e) assessment of co-operation and monitoring of its adequacy throughout the programmes
- 3) Carrying out of at least two co-operative learning sessions per week.
- 4) Carrying out of assessment, alternating the following procedures (Slavia, 1980, 1983, 1985):

Group competitions (comparison between pupils of same performance level). This helps to achieve maximum distribution of opportunity for success among pupils. It facilitates learning of social comparison skills. Application of this procedure depends on the possibility of forming similar-ability groups.

Individual competitions (comparison with one's own

performance in the previous session). This increases opportunities for success for all pupils. It stimulates development of the idea of personal progress.

Intercultural content

Two of the schools included in this study (Islas Filipinas and Enrique Granados) systematically introduced intercultural contents in the intervention programmes. In the former, for example, work was carried out with the following material: 1) History of the gypsy people (within the Environmental Studies and Language areas of the third stage of the Primary curriculum), in the form of play-readings prepared by teachers participating in the programme; 2) A story used in previous studies (Díaz-Aguado and Baraja, 1993; Baraja, 1993; Díaz-Aguado, Martínez Arias and Baraja, 1992), designed specifically for the encouragement of tolerance and prevention of racism, entitled "Would you like to know about the Blues?" (first and second stages of Elementary curriculum); and 3) Design of activities and material on itinerancy and nomadism prepared by teachers participating in the programme (first and second stages of Elementary curriculum).

Development of the intervention programme

Taking into account all the information obtained on the innovations made in the classrooms in which the programme was assessed, the following characteristics were noted:

- 1) It began with the method of co-operative learning in heterogeneous groups. Mean number of sessions was 11.
- 2) Incorporation of the intercultural content took place after several sessions of co-operative learning, and by means of that process. Mean number of sessions with intercultural materials was 5.
- 3) It resulted, in all cases, in a marked increase in interaction between peers in academic tasks in the classroom, and generally to the initiation of such interaction in heterogeneous teams. This, in turn, led to an increase in opportunities for protagonism and social integration for all pupils (especially those belonging to ethnic and cultural minorities and special needs children) and to changes in the role of the teacher.
- 4) In the majority of classrooms the innovations previously described were implemented by more than one teacher. This collaboration between teachers occurred as a result of their meeting in the seminars. Additionally, several further sessions took place for the preparation of material and activities.
- 5) In one of the schools, Enrique Granados, procedu-

res of discussion and resolution of conflicts were also developed, leading to the creation of a Justice Committee and the drawing up of Internal Regulations by teachers and 7th/8th-grade pupils.

ANALYSIS OF THE PROGRAMMES AND ASSESSMENT OF RESULTS BY TEACHERS

One of the objectives of this work was to improve understanding of the psychological process and conditions through which the programmes achieve their effects, paying special attention to the co-operative learning procedure and taking into account teachers' evaluation of it. We therefore include, below, a selection of the comments made by teachers in the course of the study in different contexts (seminars, interviews and questionnaires)

Co-operative learning

1) *Conceptualisation of co-operative learning by teachers.* The evaluations of co-operative learning expressed by teachers after employing it in their classrooms demonstrates its value with regard to: facilitating the adaptation of teaching to all kinds of pupil, stimulating cohesion within the group and developing solidarity and ability to co-operate. This is clear from the following comments, made by teachers when asked what co-operative learning meant for them:

SPANISH LANGUAGE TEACHER, SIXTH GRADE: "The term itself says it all, "co-operation", but between all, regardless, not good ones with good ones and bad with bad. And the measure of its success (in this context) is the fact of pupils having achieved their own goals, independently of the quantitative results, with respect to their abilities".
CLASS TEACHER, SECOND GRADE: "Learning calmly, without being afraid of doing it wrong, learning to let yourself be helped, humbly, learning to respect differences and to value other aspects of "them", that we call different. (And academic success in this context) means each pupil achieving on a personal level the maximum possible according to his or her possibilities and limitations".

2) *Presentation of co-operative learning to pupils.* Teachers' responses on being asked how they explain the new procedure to their pupils reflect the emphasis placed on the need for co-operation and reciprocal help.

CLASS TEACHER, THIRD GRADE: "It was approached from the point of view that what we all want is "to learn". How can we do it? Can we help one another? What rules should we follow? The pupils themselves came up with rules from their own experience, and between us all we adopted those most suitable. In the end it was proposed to put up the scores on a card".

3) *Distribution of roles within a team.* One of the main difficulties of co-operative learning, soon resolved by most teachers, concerns the need to structure the distribution of roles, with a view to sharing out in the most appropriate way the asymmetric roles within each team and providing experiences of equality of status. Through the assessment procedure designed for the competitions, teachers perceive that it is possible to guarantee these experiences even in conditions of extreme diversity, as is the case, for example, of some of the groups that include pupils with special needs.

CLASS TEACHER, THIRD GRADE: "Every six weeks the responsibilities are changed, so that over the course of the year all pupils have been given responsibility. (...) Generally, they support one another, but there are some children that more spontaneously help their classmates, and these tend to be those who find the work easiest. (...) Generally, it tends to be the same pupils that receive most help, because they need it most, and these are the children with some disability or who have difficulty concentrating. (...) They tend to be quite spontaneous, and ask for help whenever they need it".

CLASS TEACHER, SECOND GRADE: "Assessment was carried out using a system of points (in the competitions) that were awarded each day, at the end of the activity. Sometimes it didn't seem very fair, as they all worked really well, were highly motivated and created a really good climate of co-operation and help amongst them. (...) The pupils with difficulties and the special needs pupils were surprised to get the same mark as their colleagues with high academic ability. (The competitions made it possible) for everyone to get good marks".

4) *Some pupils initially reject co-operative learning, accepting it after being motivated in a special way.* In general, teachers did not have particular diffi-

culty in putting co-operative learning into practice. They occasionally mention, however, that some pupils were at first reluctant to accept it, only doing so after several sessions, and after being helped to overcome their specific motivational difficulties.

MATHS TEACHER, SIXTH GRADE: "I didn't have any real difficulties (...) One problem I did have to solve was with Luis Miguel (a 6th-grade gypsy pupil). He was lacking motivation; he didn't want to anything, saying it was a drag, so I asked him to go and sit at a table apart from the group. Then I continued with the explanation, but trying to move it towards areas that would interest him, and he was soon asking to rejoin the group. I stopped him: "I thought you said it was a drag?"- "No, Miss, I like this," and he rejoined the group looking keener and more interested. He studied polygons at home, and contributed a lot in class."

5) *Activation of the knowledge construction zone.* On asking teachers about the relative effectiveness of co-operative learning for achieving objectives related to content, procedures and attitudes, they tend to refer to: processes that coincide with the knowledge construction zone, to the greater facility of classmates to explain things at the same level, and to the possibility of learning through an activity in which the learning objectives and the tools necessary for them arise simultaneously, as was the case in the *sharing of complete tasks*.

CLASS TEACHER, FOURTH GRADE: "This method is useful in a general way, but especially for procedures. There are many cases in which the first thing is not the understanding of the concept but the procedure, the activity. Although you start out by explaining it, many children understand it later, when they do the activity, through the procedure".

CLASS TEACHER, FIFTH GRADE: "They explain it in a different way from us, and their colleagues understand better".

SUPPORT TEACHER: "Sometimes I find that pupil has taught one of his classmates his way of doing things, and he's understood him better than me, perhaps because of the words he's used; maybe the teacher's language isn't as accessible as the language the pupils use. Perhaps they also feel freer, less pressured. I mean, sometimes, when the tea-

cher explains something to a pupil personally, fear of looking silly might make him feel under pressure, whereas with a classmate if you make a mistake it doesn't matter. For instance, they test each other on verbs and they know them, but when they come up to my desk their mind goes blank. It's not that they're afraid of being punished, because they don't get punished, but they're probably afraid of looking bad in front of the teacher; they're nervous -and it's not fear of getting a bad mark, either, because my marks don't count. It's also positive that they test one another, that they act as teachers, like it's a game -it motivates them. And if they're not sure about something they can always ask me. (...) The possibility of using one's own colleagues for learning is there, it's possible. And it's a good thing; the thing is, you shouldn't always use the same ones. They should all be given responsibility at some time, with the concepts being adapted to their experience and knowledge; they should all have the chance of being the teacher and the pupil in different subjects".

6) *Effectiveness of co-operative learning for adapting learning to diversity and teaching to give and receive help.* When teachers are asked in a general way about the most relevant result obtained in the co-operative learning, they usually mention: its effectiveness for adapting education to the diversity of pupils, the improvement in class cohesion and its value for teaching how to build tolerance and solidarity (on legitimating behaviours related to giving and asking for help).

CLASS TEACHER, FIRST GRADE: *What objectives have you achieved with this learning method?* "That pupils interact with their colleagues in a positive way, with a common aim; that they develop social skills; and that they are capable of both asking for and offering help". *Do you think it is possible and useful to continue using this method in future?* "Yes. In fact, in everyday class situations, when pupils finish their work, they ask if they can help anyone".

CLASS TEACHER, THIRD GRADE: *What objectives have you achieved with this learning method?* "The majority of the children work more independently; they co-operate with one another very well (...). This is very

important for the pupils with the greatest difficulties (...), and allows the teacher to attend to those that most need help (...), since many of the problems they previously had to deal with are solved among the pupils themselves”.

7) *What type of pupils does co-operative learning benefit most?* When teachers are asked what type of pupils most benefit from co-operative learning, the most frequent response is “all of them”, with regard to both the learning of content and education in values. In many cases, moreover, teachers describe the surprising changes it produces in pupils that initially had learning difficulties or problems of integration in the class group. Some teachers also stress the advantages of this method for pupils without particular problems in either of those cases. Others point out the important role of this method in the social integration of foreign pupils and the learning of a second language.

CLASS TEACHER, FOURTH GRADE: “For those who were doing all right it’s helped them to get to know and to value the others, their classmates. For some, maybe all, it’s been useful for revision, for consolidation and for becoming more confident... For remembering, because they’ve seen themselves that they didn’t remember things well –each one contributed what he or she remembered and they pooled their information; they can’t do that working individually. (...) Those children with high levels of performance are also greatly stimulated because they see themselves in the role of ‘stars’. I’ll bet they tell their parents, and feel important”.

CLASS TEACHER, THIRD GRADE: *What type of pupils do you think have benefited most from this method, and why?* “The ones with the most difficulties, as all their colleagues were keen to help them at all times, and there was no need for the teacher to be present all the time. *Do you think it possible and useful to continue using the co-operative learning method in the future?* Yes. In fact, the children generalise it to other areas and incorporate it in their work method, and it would be a shame not to take advantage of it”.

CLASS TEACHER, SIXTH GRADE: “(Those that were doing OK in the first place) might have felt they were wasting

their time, but then they realised it was useful for their learning, too, because on explaining things to their classmates they become aware of their mistakes, and if their mind goes a blank it’s because they didn’t know the material as well as they thought they did. They tried to think how to explain it, trying over and over again. All the most outstanding pupils accept the method, except one, who still says he prefers working alone, that he can concentrate better. It’s been very useful for the medium-level pupils; so as not to disappoint their colleagues, given the expectations generated in the team, they get more involved, contribute ideas for activities, make an effort to learn. They get embarrassed when they haven’t done the exercises and get told off by their teammates, who tell them that if they don’t work they won’t win. They meet outside school to work and prepare things; they take it seriously. At first there were problems because they copied, but then they understood that this wasn’t the way to achieve the objective (...). It’s good, and for the pupils in the social integration programme it’s very effective –they’re well looked after. (...) What’s more, relationships spring up between people who never talked to one another before. (...) At first they also found it difficult to get used to not asking me when they had a query. They would ask me and I would shrug my shoulders and tell them they should try the team first, and they began to get the idea. It took them some time to get used to seeing the teacher in another role”.

CLASS TEACHER, FIFTH GRADE: “It’s turned out very well. It helped to systematise helping, tolerance, collaboration... We did do all that before, but now it’s become a priority objective, and that’s how it was presented to the pupils (...). (For some pupils it’s been tremendously helpful). It’s been fantastic for Ivania, a little Guinean girl who’s recently arrived. She has a low level of Spanish, especially written, and if it weren’t for the teams she’d have carried on the same as at the beginning, without any friends. It’s been really useful for her, because she’s become integrated; now she talks to everybody, she’s got loads of friends”.

Incorporation of intercultural education content

Teachers consider that the incorporation of intercultural education content has been extremely positive for all pupils:

CLASS TEACHER, FOURTH GRADE:

“Diverse objectives have been attained. In general, it’s been positive for all pupils: learning about people from other cultures, appreciating the benefits of peaceful coexistence, learning to respect other values and take into account the difficulties of immigrants, comparing them with Spanish emigrants of former times. (...) And this has had an impact on the relationships between them. (...) Just the other day some *payo* children were saying goodbye to one another in the gypsy language.”

SUPPORT TEACHER: “The intercultural content was really interesting because all the kids learnt, because they got to know customs from other countries and cultures, and they realised that there are more things than just those they know about: food, clothes, fruit.... They were open-mouthed at what they heard from others, especially from the gypsies, who are slower to open up. They were encouraged to speak –I even asked them things at breaktime. It’s positive because it’s enriching –all cultures should know about the history and customs of other cultures, not just for their sake but also for ours. And because they listened and paid attention to one another.”

Teachers often highlight the strong effect produced by the intercultural content on pupils from the minority groups, on their being given the opportunity for positive academic “starring roles” based on their own cultural background:

CLASS TEACHER, FIFTH GRADE:

“They all liked it and learned about the history of the gypsy people. I liked seeing Antonia (a gypsy girl) going from one group to another helping with activities and explaining things. You could see she was proud, and that the others were keen to learn more about the gypsies. It’s the first time I’ve ever seen her proud to be a gypsy; she’s been here since she was three, and I’d never seen her like that. (...) We have to work so that both she and the others learn about each other’s history. (...) It’s been

very positive for her. (...) And the others enjoyed it, too.”

CLASS TEACHER, FOURTH GRADE:

“As intercultural content we worked on the history of the gypsies, their origins, their journeys to Europe, their customs, clothes, etc. Everything to do with their way of life and traditions. The activities and the study have been very interesting for the pupils. They worked on the language and learnt some basic words; they drew different characters with their traditional costume, their caravans, campfires, etc. All through the story of the Blues. The result was very good, and they accepted it, they enjoyed it. It was seen as really positive. (...) The two gypsy children in the class, Ana and Manuel, told us a lot about what their grandparents had told them, especially Manuel, for whom I had photocopied the History of the Gypsies (from Díaz-Aguado, Dir. 1992) (...). Their classmates asked them questions all the time. All the kids enjoyed it, especially the history. I told them: “Manuel knows a lot about it because his granddad’s told him things.” And he said: “Yes, my granddad tells me things and with my dad I sometimes say things (in *caló* [gypsy language])” ”.

The final report on the work carried out by the teachers participating in the seminar at the Islas Filipinas school explicitly stresses the importance of incorporating the educational innovations of the programmes, especially Intercultural Education and co-operative learning, in order to aid the social integration of pupils from minorities and the development of their own cultural identity and of tolerance in all pupils:

“Thanks to the organisation of activities following the methods of co-operative learning and the introduction of multi-cultural content (on the gypsy people), there was a change in attitudes in the majority of pupils towards gypsies, and in these towards their own cultural/ethnic group. The self-esteem of the gypsy pupils increased through working in groups, because they participated in the activities like the rest of their classmates. Also, studying the history of the gypsy people in a real and serious way facilitated their cultural protagonism and integration –as opposed to their mere assimilation”.

Changes in the role of teachers and in their perception of pupils

Teachers describe as quite positive the changes in their role as teachers and in their relationship with pupils resulting from the application of the programmes; their evaluations coincides, in general, with that of the pupils themselves (analysed in a later section).

CLASS TEACHER, FOURTH GRADE:

“As a teacher I felt less like a traditional teacher, more open to the children, more participant, more on the same level as them, more like I was in a game; less stiff and starchy. I felt more light-hearted, the work was more fun, there was more joy –so much of the joy had gone out of classes (...), because with the older ones you’re sometimes apathetic (...). It’s very important to motivate yourself, because otherwise you feel bad”.

CLASS AND MATHS TEACHER, SIXTH GRADE: “As a teacher I found myself participating with them more, with each individual one of them, because I go from group to group; you have more direct contact with each one of them, because when you explain and each one works alone, maybe one of them asks you something, but this way if one asks you, you talk to the whole group. You’re like one of them, and they even ask you things and accept you more in the group; you co-operate more in the groups –relations are better”.

As it can be seen from these opinions, with the application of co-operative learning the role of the teacher changes in a quite significant way, since control of the activities ceases to be centred on the teacher and becomes shared by the whole class; the teacher becomes transformed into someone that is available for facilitating the process of the construction of knowledge and values carried out by the pupils themselves in collaboration with their colleagues. This model (that of proactive teacher) allows him or her to show more empathic sensitivity with regard to the needs of each child, and to be more psychologically open to attending to them, thus helping them to develop empathy and basic confidence in themselves and others –necessary conditions for the construction of tolerance and solidarity. These conditions, in turn, contribute to improving the quality of relationships within schools, the effectiveness of teaching and teachers’ satisfaction with their work.

On asking teachers about the data obtained with the assessment instruments and the discussion of them with

their colleagues and the researcher (psychologist), their opinions were found to be highly positive. The socio-metric techniques in particular were useful in that they allowed them to discover some problems that had until then gone unnoticed, and thus to adapt their teaching of certain pupils, reducing, for example, the amount of criticism they frequently levelled at these pupils. Teachers confirmed the effectiveness of the instruments for improving interaction with difficult pupils, as well as for helping to form mixed groups and adapt the programmes to each situation. Also frequently mentioned is teachers’ surprise at the level of racism and intolerance that existed in their classes before the intervention, far higher than they had supposed.

CLASS TEACHER, FOURTH GRADE:

“The different assessment instruments are useful because they help to obtain more comprehensive knowledge of pupils. Some respond in the way you would expect, but others surprise you (...). I was surprised at how much foreigners liked Spanish people, and at their desire to integrate. I was also surprised that one of my pupils, a gypsy, doesn’t much like being considered as a gypsy, even though he doesn’t reject being one; I think he’s got a bit of a complex about it, and thinks *payos* live better and are more socially well-accepted”.

RELIGIOUS KNOWLEDGE TEACHER,

SECOND GRADE: “The instruments are useful, and for many things. For individualised treatment and orientation towards

parents, to become aware of the prejudices some of them have, of the attitude towards people from other cultures, of when they consider themselves more equal to some than to others, of their behaviour outside of the classroom that’s reflected inside it”.

Which results surprised you most? “That there are 2 or 3 children that are leaders, that do everything well, and another 3 or 4 that do everything badly. The former are models to follow –everyone is their friend. And then that they themselves believe what the others think of them, that they end up believing it”.

Have you modified your behaviour in any way as a result of the data you now have?

“There’s a Moroccan boy who never let up before, and I kept telling him off. Now he responds better (...) –I don’t tell him off any more (...). As long as he’s got something to

do he gets on with it. Even though he can't do very much, now that his colleagues show him how to do it, he doesn't get bored, and he gets on with it".

CLASS TEACHER, THIRD GRADE: "As far as the sociometric techniques are concerned, it's quite useful to see each child's level of acceptance, so that you can situate him or her within the class and gradually achieve a better general climate of acceptance". *Which results surprised you most?* "The rejection by some pupils of disabled children –it had seemed there was respect". *Have you reflected on any particular data from the tests?* "The whole of the second-year primary team reflected on the need to look for procedures that aid better integration of the most rejected pupils". *Did you modify your behaviour in any way as a result of these reflections?* "Yes. I especially looked for sufficient calm in the classroom to be able to discuss possible conflicts whenever necessary, so that they accept the consequences and understand why they occur".

Evaluation of collaboration between teachers

Previous studies on co-operative learning methods have shown that the application of these techniques permits and demands greater collaboration between teachers than that which usually occurs with other methods. Such collaboration helps to improve teachers' effectiveness and contributes to a more satisfactory experience of innovation than when it is applied individually, on making possible the comparison of the difficulties and achievements that normally result from these situations.

In accordance with previous observations, when teachers that have participated in this research evaluate the training model employed, they tend to indicate as being especially effective three of its main features: 1) discussion and reflection with their colleagues; 2) the fact that this reflection concerns teaching itself, and 3) the possibility of co-operating with their colleagues.

CLASS TEACHER, FIFTH GRADE: "Working with your colleagues in a group is quite positive, because we help one another and give each other ideas; you work more, because when you work on your own you end up getting bored and always repeating the same old thing."

RELIGIOUS KNOWLEDGE TEACHER, SECOND GRADE: "All the activities are

positive. Reflection is always necessary, but doing do together is especially useful, because everything comes out when each person contributes what he or she does or thinks. The group work and the practical experiences were also useful".

Evaluation of the programmes by the teachers acting as mediators

With the aim of finding out how teachers acting as mediators in their dissemination view the programmes, the three professionals fulfilling this role were interviewed: the two advisors for attention to diversity at the Islas Filipinas and Montserrat schools, and the Headteacher at Enrique Granados.

With regard to how to begin intercultural education programmes, the three teachers interviewed agreed on the need to start out from the demand related to it in each school.

ADVISOR: *How did the need to train teachers in Intercultural Education come up?*

"The reasons behind it (...) are immigration, and on the other hand teachers' problems in relation to gypsies –despite a long history of coexistence, they're not integrated or recognised, so some teachers have come to realise that this is a necessity, that there's a shortcoming that has to be remedied... demands for training come in, and we try to respond to them". *But, these demands for teacher training: why do they arise? Because these children cause problems?* Yes, because they cause problems; if they didn't cause problems, teachers wouldn't make any demands". *Why is Intercultural Education the response?* "Intercultural Education is a common thread that runs through lots of other subject areas (...), the foundation, the oil that's necessary for all the rest". *And do the teachers understand that Intercultural Education should constitute this common thread or not?* "At first they don't expect Intercultural Education. As the person in charge of training and with a degree of experience, you try to make them recognise the need for it (...). The most important thing is that you find teachers have a cognitive problem. You have to get them to accept there's something they're unaware of (...), that deep down they're prejudiced in their teaching... So, if you manage to get them to accept this

conflict... they're interested, but if you don't, then they tell you they don't want any more to do with Intercultural Education, that your job is to observe how they teach reading and writing..." *And how do you get this conflict to arise?* "Well, through dialogue between them, through encouraging them to reflect on their work in the team, to think about what they do".

The teacher-mediators' assessment of the application of the programmes and the training model is quite positive. They give special mention to the impact on: 1) *General development of tolerance in teachers* (on having more resources for attention to diversity) and *in pupils* (on being provided with experiences through which they get to know better their classmates from other ethnic groups and learn to co-operate); 2) *Learning and integration of all pupils*, including those from ethnic minorities and disabled pupils; 3) *Teachers' expectations* with regard to these pupils. When mediators are asked about the relative effectiveness of the different components their response is similar to that of the other teachers –that all the components are effective, but that if they had to choose one in particular it would be that of co-operative learning.

ADVISOR: *Did you notice any changes in the teachers as a consequence of their participation in these programmes?* "The change I noticed was a more open and tolerant attitude". *Tolerance towards what –towards the pupils?* "Towards the pupils, towards the pupils themselves... I don't know if tolerance is exactly the word... they saw things as being quite closed, like when we say you can't get any more out of this child, and if he or she can't give any more, well that's it, and whatever you do you're not going to get any more. And that's changed now, in the sense that they've seen that in other ways they can achieve things they couldn't have done through traditional approaches. That was probably the most noticeable thing". *In what way did you notice it –in their conversations?* "In their conversations, and often in their conversations over coffee, in the seminar itself. (...) the interchange in the seminars with regard to the things they'd put into practice was really useful (...), because there were people that thought no (...), that thought that this or that child would never speak, and it turned that he did; or that he

would never participate and he started to participate. So, they were somehow surprised, in a positive way, when they swapped experiences of what they had done in class". HEADTEACHER OF SCHOOL: *With regard to the different types of content you've dealt with in this training process, which do you think has been the most useful?* "Well, now, they've all been fantastic, and we've had a lot of fun and worked hard, and what's more, the results are there, and it's working... When we were working with Co-operative Learning –what enthusiasm! That was the best, at that time the best... and then there was Resolution of Conflicts –ooh!, that's the answer, isn't it?" (...) *What significant changes have you observed in the school, with all these new methods, in pupils and teachers?* "The pupils are more disposed to dialogue... they're able to enter into dialogue using their own language, they respect others, they're more democratic and they're more accepting of others. The teaching staff, too, we've got to know one another better, we know our own limits and respect them more. (...) co-operative learning continues to be applied... and instead of organising classes in a homogeneous way... they're organised heterogeneously, and so is the resolution of conflicts. It's something that's available to you, and the same goes for the incorporation of intercultural content. Now 90% of the gypsy children enrolled at the school attend. Look at the attendance rate we've achieved. And we'll apply co-operative learning and the programmes will continue because the needs are still there –in fact they're increasing".

ADVISOR: "I think what the teachers most like, for their attractiveness and their results, are the techniques of Co-operative Learning and assessment, which go together. In principle, they're not so much concerned with the integration of pupils or children from other ethnic groups (...); what they think is that academic performance increases in all pupils, and that those who weren't motivated before are keener now. That's what they notice most, and so that's what they find valuable. (Because) what they're normally most concerned with is academic performance".

The three teachers acting as mediators in this research considered as a necessary condition for the innovations to be maintained and generalised that they be implemented on the basis of collaboration between teachers from the same school. They also considered the model of training in school centres to be the most effective for promoting such collaboration, which would otherwise never occur.

ADVISOR: *How influential is the fact of carrying out the teacher training based on schools?* "It's fundamental to do this work with the entire teaching staff from a school, because the possibility of change and response lies in natural teaching teams. (...) If teachers receive this information in an individual, isolated way –and indeed, spaces for exchanging knowledge and making decisions with one's colleagues from the same school are practically non-existent, or very scarce– ...then nothing will occur in practice, in reality. (...) Educational quality depends on the personal satisfaction of each and every teacher in a school; if teachers are mere functionaries, simply operating a series of techniques (...), they often get tired. (...) If there is a good atmosphere among the teaching staff, in which there is sharing, where my problem is not just my problem but *our* problem, then everyone pulls their weight, gives their all, makes an effort, puts in as many hours as necessary, etc., etc., and this clearly results in the transformation of the school and in an appropriate response to the situation". *Have your expectations been fulfilled with respect to the application of the programmes The whole school?* "Yes, yes –and what's more, teachers' level of satisfaction is very high, and they've, let's say, assimilated it in a stable way; they refer to it, they talk about it, Co-operative Learning, in their school documents, in their schedules; their ideal now would be to transfer it to high school Education (...)". *What repercussions has the programme had on the school?* "Well, when teachers write about it in their documents it's because in everyday practice it's having results, or they've seen its results; so, the sole and basic repercussion is that pupils' motivation increases, they become more interested in school, pupils get along with one another better and academic perfor-

mance improves. What more could you ask for? It's like the "magic ointment" of education".

HEADTEACHER OF SCHOOL: *Do you think co-operation between teachers in the training is necessary?* "Yes. It's necessary in the training and also, mutual help in day-to-day work, the fact of there being a dialogue about how well or how badly things are going in class, and the other one giving you a solution –this dialogue and mutual help between staff is a good thing, it frees a lot of negative energy, and at the same time it gives you positive energy (...)". *Have you noticed any difficulties in the training process?* "On trying to apply the innovations in the classroom some problems cropped up. When the teachers discussed it, it seemed ideal, but then when they were in the classroom situation they said they had felt alone, as though something was missing. (...); as a result of experiences like this they often said: "come to class, you do it and I'll watch you"... so... asking for co-operation in practice as well. There are teachers that are reluctant to put the innovations into practice for fear of doing it wrong (...), and they would say: "you apply it and I'll observe you –don't leave me on my own" ". *In which activities?* "In Co-operative Learning (...), the problem of one group that finishes and another that's not finished... teachers often feel anxious, and working in groups this anxiety decreases". *Did two teachers ever work together?* "Yes, yes. In the second stage there were two of us together, and we supported one another..."

As reflected in the remarks above, the experience of sharing the teaching with a colleague within the same classroom would appear to provide an excellent opportunity for overcoming certain obstacles involved in educational innovation, and to facilitate, for example, the acquisition of complex skills (of communication, observation, listening, etc.) that are difficult to acquire in other contexts.

The training model in schools appears also to have favoured close collaboration within the classroom between two teachers with different but parallel functions: the support teacher and the class teacher. The difficulties that often characterise this situation have been overcome, and this collaboration has contributed to improving

the effectiveness of the innovations carried out and the satisfaction of the teachers involved.

ADVISOR: *What is the current role of support teachers? How is their relationship with class teachers, or what should it be like?* “The potential role of support teachers (...) is multiple and varied... In the majority of schools this resource is wasted, because their role is limited to taking pupils out of the classroom and giving them individual tuition, when this is often unnecessary. Sometimes, a particular pupil needs specific reinforcement in a certain technique or a given area of the curriculum, but most of the time such reinforcement could equally take place within the classroom and benefit the majority of the class, or all of it; I mean, if you analyse one by one all the reinforcements pupils receive outside, they could be done inside (...). Class teachers and support teachers could swap roles with a view to facilitating better integration of pupils –it would help integration, and the child that goes out wouldn’t be identified as stupid, or as going out because s/he’s a gypsy, or any other label”. *What do you mean by swapping roles?* “Often, the support teacher could adopt the role of class teacher and the class teacher could provide the support for pupils inside or outside the classroom. (...); moreover, it’s been studied, it’s been demonstrated that when you don’t discriminate, when you don’t say ‘this is the support teacher, this is the class teacher’, it helps the integration of pupils (...) –they can see that the class teacher also attends to other pupils (...) that their learning, everyone’s learning is supported (...), and this helps integration of these children with another normalised formal group, so that they’re not always ghettoised or set apart”.

ANALYSIS OF RESULTS IN PUPILS

In order to analyse the significance of the change produced by the intervention in each of the quantitative variables measured by means of questionnaires (behavioural disposition and ethnic identification), an analysis of variance (ANOVA) was carried out, with two factors, one within-subjects or repeated measures, with two levels (application time of tests, before and after intervention, pre-test and post-test), and another between-

subjects, with five levels, according to the school grade (second, third, fourth, fifth or sixth).

In order to analyse the significance of the change produced by the intervention in some of the measures used that cannot be considered as intervals (sociometrics and interview), we used non-parametric procedures based on ranks. In the categorical measures (preference for interaction with members of diverse groups) we used the McNemar test for repeated measures.

The analyses of variance were carried out using the 2v programmes from the BMDP statistical package, and the non-parametric tests using the 3s and 4f programmes from the same package.

Changes in tolerance

In order to assess tolerance before and after the intervention we used the *Behavioural Disposition Scale*, validated in previous studies (Díaz-Aguado, Martínez Arias and Baraja, 1992), which is presented in the Appendix. In this questionnaire pupils are asked how much they like participating, or would like to participate, in various activities with children from another ethnic or cultural group.

In general, the changes observed in pupils after the intervention reflect a significant increase in tolerance that varies according to the pupil’s age and/or his/her initial level of intolerance. These changes are especially significant in relation to the gypsy minority (which initially suffered the most rejection) and around the age of 8, an age at which especially relevant changes in social understanding usually occur.

Changes in the majority group

In various previous experimental studies (Baraja, 1993; Díaz-Aguado and Baraja, 1993; Díaz-Aguado, Martínez Arias and Baraja, 1992) using the behavioural disposition scale it was observed that control pupils from the majority ethnic group, who did not participate in the programmes, became more intolerant over time, whilst for those in the experimental group exactly the opposite occurred: after participating in the programmes their disposition to interact with classmates from other ethnic groups improved. The experimental design has previously permitted us to confirm that the effect of the programmes applied by teachers on the behavioural component of tolerance in the majority group is highly significant ($F_{1,371} = 15.80; p=.000$). The objective of this study with regard to the assessment of tolerance was to check whether the change produced by the programmes was the same in all grades of primary education and whether it also occurred in relation to foreign pupils.

As shown in Tables 1 and 2, there was a highly significant improvement ($p < .0000$) after the intervention in the majority group's disposition to interact with their gypsy colleagues, towards whom they had previously expressed attitudes of rejection. The fact that the interaction grade X intervention is also significant ($p < .0000$) suggests that effectiveness of the programme is related to pupils' age (3rd grade showed the highest significance). The differences observed as a function of age were also significant ($p < .0000$), and in the same direction as those detected in other studies, suggesting an increase in tolerance up to pre-adolescence and a subsequent decrease.

Comparing Tables 4 and 2, it can be seen that the disposition of the majority group to interact with foreign colleagues before the intervention is much stronger than their disposition to do so with the gypsy minority. This would explain why the pre-post intervention differences found for this variable do not reach conventional levels of statistical significance, the levels attained being no more than marginal ($p < .09$). As was the case with the previous variable, highly significant differences are found as a function of grade, with a progressive increase as age increases, and the most significant rise occurring between 2nd and 5th grades.

Changes in the minority groups

With regard to the disposition of pupils from minority groups to interact with classmates from the majority group, previous research (Díaz-Aguado, Martínez Arias and Baraja, 1992) had found that:

- 1.- In general, pupils from the minority group reduce their reluctance to interact with colleagues from the majority ethnic group over the school year. This decrease cannot be attributed to the intervention programme, as it is similar in the two groups (control and experimental).
- 2.- The behavioural component of prejudice (assessed by the Behavioural Disposition Scale) is far less pronounced in the minority group than in the majority group. This reflects the asymmetry existing in interethnic prejudice, which is maintained after the intervention (despite the fact that effectiveness in this aspect is confirmed in the majority group).
- 3.- Comparing the changes occurring over the school year in the control group (to whom the programme was not applied) in majority pupils (who have more perceived power) and minority pupils (with less power), different tendencies were observed: whilst the non-gypsy pupils increased their reluctance to interact with gypsies over time, the opposite was true in the case of the gypsy children.

In the study presented here we propose to discover whether the changes produced over time in disposition of the minority groups to interact with their majority group colleagues are similar in different grades or age groups, or whether, on the contrary, there are significant differences according to age.

Tables 5 and 6 show the results obtained in this research with regard to disposition of the two minority groups (gypsies and foreigners) to interact with their classmates from the majority group (non-gypsies and

Table 1 Results of the analysis of variance (2v) on post-intervention improvement in behavioural disposition towards gypsies in majority group pupils (N = 121)			
	D.F.	F	PROBABILITY
GRADE	3	8.78	.0000
INTERVENTION	1	43.78	.0000
GRADE X INTERVENTION	3	4.55	.0000

Table 2 Means and standard deviations pre and post-intervention in behavioural disposition towards gypsies in majority group pupils (N = 121)				
	MEAN		STANDARD DEVIATION	
	PRE	POST	PRE	POST
THIRD	19.04	27.52	8.7	7.2
FOURTH	18.93	20.43	9.5	10.4
FIFTH	27.12	31.06	6.4	6.6
SIXTH	22.21	25.16	8.0	7.4

Table 3 Results of the analysis of variance (2v) on post-intervention improvement in behavioural disposition towards foreigners in majority group pupils (N = 127)			
	D.F.	F	PROBABILITY
GRADE	4	6.96	.0000
INTERVENTION	1	2.78	.0978
GRADE X INTERVENTION	4	1.31	.2695

Table 4 Means and standard deviations pre and post-intervention in behavioural disposition towards foreigners in majority group pupils (N = 127)				
	MEAN		STANDARD DEVIATION	
	PRE	POST	PRE	POST
SECOND	26.71	24.14	5.91	10.22
THIRD	25.76	29.65	7.84	7.68
FOURTH	28.00	30.10	7.80	6.42
FIFTH	31.84	33.55	7.53	4.19
SIXTH	32.79	33.72	5.44	4.49

Spaniards). Comparing Table 6 with Tables 2 and 4 we can see that the disposition of minority group children to interact with those of the majority group is always superior to that of the majority group children to interact with them. Once again, we can observe asymmetry in the inter-group attitudes as a function of each group's status. It is not surprising, then –as found in previous studies– that the differences produced by the intervention do not present overall significance in the minorities. The fact that the interaction grade X intervention is significant ($p < .03$) suggests that these changes may depend on pupils' age, being especially significant in 2nd-grade children, and on tolerance expressed before the intervention, since the 2nd-grade pupils in which the most significant changes were observed were the only ones that presented some reservations about interacting with majority group colleagues before the intervention.

Changes in identification with one's own group

Identification with one's own group was assessed on the basis of responses to three questions, included in the Behavioural Disposition Scale, on child's level of satisfaction with membership of his/her ethnic or national group, in which they were asked if they would prefer to belong to another ethnic group or to have been born in another country. In two of these questions participants were asked, for example: "If you were born again, what would you like to be? (*payo*, gypsy, or don't care)"; and "What would you like your parents to be?"

In previous studies (Díaz-Aguado, Martínez Arias and

Baraja, 1992) it has been observed that programmes designed to develop tolerance produce opposing tendencies in identification with one's own group in majority group pupils (who have more perceived power) and minority group pupils, contributing to a reduction in the absolute identification with one's own group that the former expressed before the intervention, and helping to overcome the problems of identification with one's own ethnic group that the minority group pupils presented before the intervention. These results can be related to the asymmetry of interethnic attitudes and the nature of the programmes, and especially with the fact of their having provided both groups with experiences of equality of status.

Changes in the majority group

In order to assess possible changes favoured by the intervention with regard to identification with one's own group (as found in previous studies), it is convenient to take into account the fact that none of the majority group pupils (those with most perceived power) have ever expressed (either pre- or post-intervention) problems of identification with their own ethnic group, since none of them expressed a desire to belong to another group. After the programmes, however, there is an increase in their tendency to respond that if they were born again they wouldn't mind which group they belonged to, arguing that the colour of one's skin is not important, or that both groups have valid characteristics –responses that could be interpreted as indicating increased tolerance. Meanwhile, in the control group pupils the tendency to select this response (which reflects a certain relativism) decreases with the passage of time. These differences observed in ethnic identification (in the direction of an increase in relativism) in the majority group did not, in previous studies, reach conventional statistical significance ($F_{1,375} = .174$; $p = .174$).

The objective of this research with respect to this variable is to study simultaneously the changes produced by the intervention on comparing one's own group with other ethnic groups (the gypsy minority) and other nationalities, as well to ascertain whether the changes vary as a function of the age group to whom the programme is applied.

As it can be seen in Tables 7 and 8, the pupils from the majority group present after the intervention a less absolute identification with their own ethnic group than that which they expressed before the programmes ($p < .0009$). The differences are also significant in relation to grade ($p < .0001$), and are in the same direction as the differences observed in disposition to interact with the gypsy minority (in relation to which the questions that permit evaluation of ethnic identification were

	D.F.	F	PROBABILITY
GRADE	4	1.61	.2342
INTERVENTION	1	0.01	.9090
GRADE X INTERVENTION	4	3.67	.0357

	MEAN		STANDARD DEVIATION	
	PRE	POST	PRE	POST
SECOND	24.00	29.00	9.90	5.66
THIRD	31.00	27.00	8.48	14.14
FOURTH	36.00	35.00	3.46	3.46
FIFTH	34.80	33.40	4.97	5.90
SIXTH	36.00	37.00	3.87	2.55

posed), with a decrease from 2nd to 5th grade and a subsequently increase.

Tables 9 and 10 show the differences observed before and after the intervention in national identification of the majority group pupils. On comparing Table 10 with Table 8, it can be seen that, in a similar way to behavioural disposition towards foreigners, the relativism of the majority group is superior when they are asked about country of birth than when they are asked about membership of ethnic group. It is not surprising, therefore, that in national identification no significant differences are observed before and after the programme. The effect of age, on the other hand, is statistically significant ($p < .0004$), and once again in the same direction as behavioural disposition towards foreigners, reflecting a higher degree of tolerance as age increases, especially up to fifth grade, after which it stabilises.

Changes in the minority groups

In previous works it has been observed that before the intervention a significant number of gypsy children (following a tendency observed in most minority groups in disadvantaged situations), when asked about their ethnic preference, answer that they would prefer to belong to the majority group –which is perceived to have more power; this tendency is not found in any pupil in the majority group.

Díaz-Aguado, Martínez Arias and Baraja (1992) found that the programme for the development of tolerance appeared to provide minority group pupils with the opportunity to resolve the problems of ethnic identification they had initially, since after the intervention their degree of ethnic identification improves considerably, up to the point that it does not differ significantly from the degree of ethnic identification observed in the majority group. And while the minority group pupils participating in the programme improve their ethnic identification, in the case of those from the control group precisely the opposite occurs: their problems of identification appear to increase. Although the effectiveness of the intervention in this variable does not reach conventional levels of statistical significance ($F_{1,55} = 1.20$; $p = .27$), it has been taken into account as one of the criteria of its effectiveness, due to: 1. The small sample size (that allows the consideration of less demanding significance levels); 2. The strong tendency for resistance to change of this criterion; 3. The fact that the degree of ethnic identification expressed by pupils from the two groups (majority and minority) after participation in the programme is similar.

The change observed in previous studies in ethnic identification of the minority group suggests that the inter-

vention may provide pupils from this group with the opportunity to feel satisfaction at belonging to their ethnic group, probably due to the emphasis it places on the culture and values of minorities and to the changes produced in the academic status of these pupils (as a consequence of the distribution of success) and in their social status (reflected in the sociometric measures). Likewise, it appears that this opportunity was sufficiently significant to compensate for pupils' previous experiences in

	D.F.	F	PROBABILITY
GRADE	3	7.58	.0001
INTERVENTION	1	11.65	.0009
GRADE X INTERVENTION	3	0.77	.5104

	MEAN		STANDARD DEVIATION	
	PRE	POST	PRE	POST
SECOND				
THIRD	11.25	9.95	1.45	2.37
FOURTH	11.00	10.52	1.41	2.51
FIFTH	9.29	8.73	2.08	2.12
SIXTH	10.68	10.24	1.86	2.05
TOTAL	10.49	9.88	1.86	2.04

	D.F.	F	PROBABILITY
GRADE	4	5.48	.0004
INTERVENTION	1	0.02	.8867
GRADE X INTERVENTION	4	0.15	.9631

	MEAN		STANDARD DEVIATION	
	PRE	POST	PRE	POST
SECOND	10.00	10.44	1.80	1.94
THIRD	9.65	9.45	2.70	1.54
FOURTH	9.11	9.17	2.59	2.52
FIFTH	8.15	8.23	2.25	2.16
SIXTH	8.00	7.80	2.25	2.50
OVERALL	8.66	8.64	2.25	2.50

the opposite direction (that led them to prefer to belong to the majority group).

In this study we propose to discover whether changes in identification with one's own group in the minorities differ with age, and whether they also occur in foreign pupils. Another of our objectives was to make progress in the assessment of this variable by means of an interview.

Analyses of the situation prior to the intervention reflect a significant effect of age only in the case of foreign pupils ($F=4.74$; $p=.05$), who decrease identification with their own group between 2nd and 4th grade and between 5th and 6th.

Although for none of the minorities studied does the change in ethnic identification produced by the intervention reach conventional levels of statistical significance (due probably to the small sample sizes), in the interviews we can observe important changes in some of these children. The following two interviews reflect this:

JUAN, GYPSY PUPIL AGED 8, BEFORE THE INTERVENTION: *Are payo children different from gypsy children, or do they have things in common, too?* (...) The main difference is in the skin. And we have a different way of speaking (...). I don't understand the way some of them speak myself. I speak in both ways. Here I speak *payo*, because I'm embarrassed because there are more *payos*. When I'm with gypsies I speak gypsy. We have different words for shame, pig, father, eggs, mother, brother. We use to speak like that before, but not now because we've learnt other words. In the gypsies there's no rich or poor... Some of us, well, we're just normal (...). *What's the most important thing you do at school?* (...) Doing what the teacher says (...) some kids don't know how (...) they make a fool of themselves (...) I make a fool of myself sometimes (...) –I don't know why”.

JUAN, AFTER THE INTERVENTION: *What's the most important thing you do at school?* “Studying, language...” *Why is it important?* Because when you read and study you can learn lots of other things... The other day we learnt words in Romany (...). Now I know a lot more words in Romany. I've written them down in my notebook. My uncles taught me them. When I can get a book on Romany I'm going to pass it round so that people can learn them”.

Before the intervention Juan expressed a certain rejection

towards his own group; he referred, for example, to his way of speaking with ambivalence and embarrassment. On describing his situation in the classroom he says that he sometimes makes a fool of himself. The fact of participating in the programmes appears to have provided Juan with the opportunity of solving these problems; especially significant is the incorporation of content on the Romany language, content that his family knows well and that he is keen to teach to his classmates.

TOMÁS, GYPSY PUPIL AGED 11, AFTER THE INTERVENTION: *What do you think of payo children?* “They're fun to be with, some study hard, they're good, intelligent, and they get better jobs because they've studied. They've had more money and opportunities to go to school, because, before, gypsy kids had to help their parents to make a living, and the *payo* kids didn't, and they could go to school. Now it's different because we've got more chances, more money, because now you can't work when you're 15 and you could before, and so we have to study”. *The payo children –are they all the same, or not?* “No. Some of them play with you, it's all the same to some of them to play with gypsies or foreigners. Others are bad, racists, because they believe in Hitler and all that rubbish, what you see on telly sometimes, that foreigners take our jobs. (...)”. *Can payos change?* “The racists and those that think we're bad, yes. If we teach them our customs, about the way we are, they way we behave.” *And what can you do to make them change?* “Talk to them about the way we are, our customs, everything”. *And can the teacher do anything?* “Yes. Talk about us”. *If you could be born again, would you like to be a payo?* “I wouldn't care; I want to be just an ordinary person; it's all the same to me to be a *payo* or a gypsy or from another country. I'm proud to be a gypsy because we're more fun; *payos* don't have knees-ups like we do. Sometimes my friends ask me how we live –they like to know things and I tell them”.

The interview with Tomás after the intervention shows how he has assimilated the content on tolerance, racism, and intercultural areas that his teacher has tried to transmit in the classroom. Tomás, moreover, expresses pride in belonging to his group, at the same time as demonstrating flexible and relativist attitudes, and tolerance towards the other ethnic group, together with a degree of

understanding of the influence that academic opportunities may have in each group.

From the analysis of these data it is clear, once more, that in order to make equality of opportunities compatible with the right to one's own cultural identity it is necessary for the school to adapt the teaching-learning style and educational interaction model to the diversity of pupils, overcoming the obstacles that may lead to discrimination and guaranteeing that all pupils attain an adequate level of protagonism on the basis of their own cultural background.

Changes in the relationships between classmates assessed with sociometric techniques

Assessment of social status (average level of popularity or ranking) was made on the basis of the responses obtained on asking pupils to give a score to each of their colleagues based on the question: *Do you like him/her?*, and using a five-point scale (a lot, quite a lot, neither like nor dislike, not much, not at all). From pupils' answers the sociometric status of each pupil was calculated, dividing the sum of the scores received by the number of colleagues that awarded points.

Studies carried out previously with programmes applied by teachers show that in such conditions the intervention programme results in a statistically significant improvement ($p = .05$) in the social status of children from the minority group (Díaz-Aguado, Martínez Arias and Baraja, 1992), an effect that is stronger than those obtained in previous research by experimenters (Baraja, 1993; Díaz-Aguado and Baraja, 1993).

The greater effectiveness of the programmes when they are applied by teachers, in terms of improving the popularity of minority group pupils, may be related to the special significance of their role as mediators in the distribution of success and academic protagonism.

In this study we propose to confirm once again the effectiveness of the programmes applied by teachers for the general improvement of relations between classmates, and especially for favouring the social integration of pupils belonging to minority groups, which here includes, together with the gypsy minority, a group of foreign pupils.

As it can be seen in Table 11, after the intervention pupils express a more positive attitude towards all their classmates when they are asked about them in the sociometric process of ranking ($p < .0000$). This change is found to be statistically significant both when the majority group is considered ($p < .0000$) and on consideration of the two minority groups, which despite their small sample size also improve in a significant way ($p < .03$).

As it can be seen in Table 13, after the intervention

there is a highly significant change in pupils' response to the question about who they prefer to work and play with (the majority group, one of the minority groups –*payos* or foreigners– or children from any group), with a clear increase in the tendency to respond with the third option, as against the preference for the majority group and in general for one's own group that was found before the intervention. It should also be noted that the change appears to be greater when the comparison is made as a function of ethnic group, between *payos* and gypsies ($p < .0000$), than when it is made between Spaniards and foreigners (for playing, ($p < .0018$), for working, ($p < .0058$)).

Changes in the ability to co-operate

In order to assess pupils' representation of co-operation in heterogeneous teams before and after having used it as a learning procedure, individual interviews were carried out, applied and assessed using the clinical method proposed by Piaget, semi-structured around the following questions: 1) *Who do you most like studying or working with? Why?*; 2) *Could you teach your classmates anything? Who? What? How?*; 3) *Could any of your classmates teach you anything? What? How?*; 4) *What do you prefer: working on your own or in a group? Why?*

On the basis of pupils' responses to this interview 4 levels of understanding and acceptance of co-operation in heterogeneous teams were defined. These ranged

GRADE	N	MEAN RANK	CHI ²	PROBABILITY
SECOND	15	924.0	28.54	.0000
THIRD	29	2749.0		
FOURTH	39	2501.0		
FIFTH	47	3272.5		
SIXTH	25	1831.5		

	N	MEAN		S.D.		WILCOXON	PROB.
		PRE	POST	PRE	POST		
Improvement in ranking in majority group	151	2.26	2.03	0.58	0.52	2145.5	.0000
Improvement in ranking in minority groups	25	2.67	2.43	0.83	0.68	62.5	.03

Note: It should be borne in mind that the higher the ranking score, the lower the level of mean acceptance

from straightforward and total rejection to a fairly precise understanding of the process and conditions that make possible such co-operation, as well as the advantages it can offer.

Table 14 presents the results of the non-parametric analysis carried out on the changes produced after the intervention in pupils' representation of co-operative learning, as expressed in the interview. These changes, as it can be seen, are statistically significant ($p < .0007$).

Below we present some of the pupils' responses to the interviews on co-operative learning carried out before and after participation in the programmes, and which show how that participation improves pupils' ability for co-operation, their attitudes towards their colleagues and their understanding of their role in the construction of knowledge.

TERESA, MAJORITY GROUP PUPIL AGED 8, BEFORE THE INTERVENTION:

What do you least like about school? "You have to work, I get bored with lots of things, and when I don't know how to do them I put my hand up and nobody comes to help me. Miss takes ages to come, and my arm gets tired being in the air so long". *Could you teach any of your classmates anything?* "Yes, yes. I know how to do the exercises

and there are people that don't. I could help them". *Could any of the children in your class help you?* "I don't know. I don't think so, because there are some others and me that are the cleverest in the class, and we always know how to do it. (...) Only Miss helps me, because she's the one that knows most".

TERESA, AFTER THE INTERVENTION: *Who do you most like studying or working with?* Elisa and Silvia. They help me a lot, and I help them. They explain things in a nice way, not shouting at me. They tell me in words, and if they can't tell me the whole exercise –because otherwise I wouldn't learn– they do it with signs, and I help them, too". (Silvia is a member of her co-operative team).

NIEVES, MAJORITY GROUP PUPIL AGED 9, BEFORE THE INTERVENTION: *Could any of the children in your class help you?* "No. Maybe Miguel – but no, I always do it on my own, I understand it. Only the teachers can help me".

NIEVES, AFTER THE INTERVENTION: *Could any of the children in your class help you?* "Yes. All of them. As I'm from Málaga we didn't do rules (...). Here they teach me to be nice, to play, to learn English". *Would you like to carry on working in groups?* "Yes. I'd like to carry on because that way I learn and my classmates, too. I learn more in a group because we're in groups –they learn me, I learn them, and so on".

SALVADOR, MAJORITY GROUP PUPIL AGED 9, BEFORE THE INTERVENTION: *What do you like best, working on your own or in a group?* "On my own and in groups. On my own because I can concentrate better that way. In a group I can't concentrate because they shout a lot. I like it, but not very much, because they shout. I like it a bit because sometimes they don't shout so much".

SALVADOR, AFTER THE INTERVENTION: *What do you like best, working on your own or in a group?* "In a group. I like it better than working on my own because they can help me and I can help them, and not when I'm on my own. I'd like to stay with the ones I'm with now, always. I like them better because, before, I didn't get on that

Table 13

Analysis of McNemar Test of the variable "who do you prefer to play and work with?" (ethnic preference 1, 2, 3 and 4), assessed with the sociometric questionnaire

Who do you prefer to play with?			
	PRE	POST	N=161
Spaniards	44	28	Chi ² 17.210
Foreigners	7	3	
Everyone the same	110	130	Probability .0018
Who do you prefer to work with?			
	PRE	POST	N=165
Spaniards	54	35	Chi ² 14512
Foreigners	5	5	
Everyone the same	106	125	Probability .0058
Who do you prefer to play with?			
	PRE	POST	N=140
Payos	51	41	Chi ² 74538
Gypsies	4	3	
Everyone the same	85	96	Probability .0000
Who do you prefer to work with?			
	PRE	POST	N=139
Payos	49	39	Chi ² 63.092
Gypsies	1	5	
Everyone the same	89	95	Probability .0000

well with them –sometimes we fought, and not now, because now we’re friends –we’ve made up. We sit together and put the things in the middle and dictate things. If somebody doesn’t know something we tell the teacher, but first we help him”.

The responses below reflect the effectiveness of co-operative learning on tolerance and school integration in pupils from ethnic minorities:

ELENA, GYPSY PUPIL AGED 8, AFTER THE INTERVENTION: *What do you like best, working on your own or in a group?* “In a group, because you’ve got more company, I have a good time with them. For instance, if we have to do an exercise we do it between all of us, (...) you learn more because they tell you things”. *Would you like to change your group?* “I’d like to carry on with the same people. I like them better now because, before, they used to say horrible things, and now it’s the opposite –they help me, they play with me in the playground. Before they used to say “gypsy bagarre”, because as I’m a gypsy they said that, and as they’re *payos* they set themselves apart. Now they don’t say it anymore because they’re good mates with me”. *Why don’t they say those things to you anymore?* “Because I tell them, I say: “We have to get on well”, and they say: “We have to be nice and get on well, work together and help each other”. And I tell them things about my people, how we throw almonds and you rice (at weddings). They ask me about the knees-ups and things. I tell them, those in my group, and we talk. They like it, and they tell me things”.

Finally, we include three responses that show the effectiveness that co-operation between classmates may have in facilitating learning in all pupils, on activating the knowledge construction zone and legitimating behaviours of asking for and offering help, and thus helping to build solidarity.

JOSE, MAJORITY GROUP PUPIL AGED 11, BEFORE THE INTERVENTION: *What do you like best, working on your own or in a group?* “On the one hand more on my own, because if someone’s lagging behind and I’m ahead I find it hard to stop, because I get discouraged and it seems like I’m never going to finish; and on the other hand I like it, because I also like them to wait for me and explain things as well”.

JOSE, AFTER THE INTERVENTION: *What do you like best, working on your own or in a group?* “In a group –before no, but now yes, because if I don’t understand something they can explain it to me, and if they don’t understand something I can explain it to them. Before no, because we’d never done it. Well, we had –they’d put me in a group, but all of us working on our own, and only for two days. (...) It’s been good for Juanma and Nuria because Juanma didn’t use to ask for help, he used to get stuck, and we told him not to get stuck and he’d learn better. Nuria used to say “I don’t understand”, and she did understand, but it was so that we’d tell her. If she didn’t know it we’d explain it to her a bit and ask her, for example: “How many sides has a pentagon got?”, and we’d help her a little until she said it had 5. She didn’t want to think, but we helped her like I said”.

TOMÁS, GYPSY PUPIL AGED 11, AFTER THE INTERVENTION: *Could you teach any of your classmates anything?* “Yes. Luis, who asks me, and I teach some of my friends in 5th grade to speak gypsy language”. *Could any of the children in your class help you?* “Yes. Azucena, Jorge, things I don’t know. They explain things better than the teacher; I understand their words better, they use less difficult words”. *Have you worked in groups?* “Yes. We did a project on inventors; we did Volta and Edison. We were one of the best groups, and the cover was one of the best. We put in photocopies and biographies. Some did more than others, but we all helped; we looked for information. I liked working in a group. We had a lot of fun. We spent an afternoon in the team captain’s house”. *What do you like best, working on your own or in a group?* “I prefer working in a team because I understand it better and it doesn’t get on top of me, because on my own it gets on top of me”.

Table 14
Results of the non-parametric analysis (3d) on the post-intervention change in pupils’ representation of co-operative learning, as assessed by the interview

	N	MEAN		S.D.		WILCOXON	PROB.
		PRE	POST	PRE	POST		
Attitude towards co-operative learning	23	2.56	3.26	0.79	0.54	7.5	.0007

Changes in the representation of the teacher

In order to assess pupils' representation of the teacher's role before and after the intervention, individual interviews were carried out, applied and assessed following the clinical method proposed by Piaget, semi-structured around these questions: 1) *Why is the teacher in class? What does the teacher have to do?*; 2) *Can anyone else that's not the teacher teach you? Who? Why?*; 3) *If the teacher wasn't there, could anyone else teach you? Who?*

On the basis of pupils' responses to this interview before and after participating in the programmes, we can identify six models of the teacher and teacher/pupil interaction, based on two dimensions:

- 1) The teacher's role in the construction of knowledge, in which three models are differentiated that appear to coincide, at least in part, with the three styles of attention to diversity defined in previous research (Brophy, J., and Good, T. 1974. Díaz-Aguado, 1996): a) *Model 1 (overreactive)*, as someone that designs tasks and gives grades, and with whom the pupil fails or sometimes feels like a fool; b) *Model 2 (reactive or laissez-faire)*, as someone that restricts his/her activity to presenting information, designing tasks or homework and giving grades; c) *Model 3 (proactive, compensatory of inequality)*, as someone that is available for helping pupils to overcome the difficulties that may arise in the learning process and adapting teaching to the diversity of pupils.
- 2) The teacher's role in the resolution of conflicts and the establishment of norms: a) *Model 4 (coercive teacher)*, as the person responsible for maintaining order and who must be obeyed; agent of punishment; b) *Model 5*, as someone from whom to learn how to behave, and who *dictates norms*; c) *Model 6*, the teacher as a *democratic authority*, with whom to construct and apply the rules negotiated and agreed by all, and as mediator in the resolution of conflicts.

Presented below are some responses from the interviews with pupils that reflect the different models of representation of the teacher:

Model 1. JUAN, GYPSY PUPIL AGED 8: What does the teacher have to do? "Explain things on the board. Then we have to do it ourselves, and when we've finished she corrects it. Some children talk and make a fool of themselves (...). Me too, sometimes -I lose it and make a fool of myself. I don't know why".

Model 2. LARA, MAJORITY GROUP PUPIL WITH SPECIAL NEEDS, AGED

10: What's the teacher there for? "To learn and teach". What does she have to do? "Explain things; she writes it on the board and tells you how you have to do it".

Model 3. ELSA, MAJORITY GROUP PUPIL, AGED 10: What are the teachers there for? "To help, teach and understand things". What do they have to do? "Help you, be nice, because if they're nice the children will behave better, we'll be nicer and quieter. They help us; if you don't know something they explain it to you, and if you still don't understand it they set you work or stay longer with you to explain it".

Model 4. EFRÉN, MAJORITY GROUP PUPIL, AGED 9: What does the teacher have to do? "Stop the children fighting, because they start rows, and the class can't go on. And write down the names of those that misbehave and then punish them, because they misbehave, and there's no other way to stop them misbehaving; they shouldn't misbehave, because they get punished".

Model 5. IGNACIO, MAJORITY GROUP PUPIL, AGED 12: What are the teachers there for? "To teach us, everything we need to know, the subjects. Teach us that we shouldn't hit others, to sit up straight, not to bother our classmates when the teacher's talking".

Model 6. NORA, MAJORITY GROUP PUPIL, AGED 9: What do you most like about school? "I like everything; what I least like, for example, is when I get told off. I don't like it because I want things to be nicer, to have a good time, with no fights (...) there are rules at school that we have to keep to, but some people don't, they forget them. (...) The pupils, we can also make rules, for instance when we go on a trip: "no getting off the bus", "no getting separated from the group", "no running", "no crossing the road on your own", "no going ahead of the teachers". We say it when we go on a trip. The teachers are pleased, because we don't want to get told off or have an accident. They say: "Let's see now, how should we behave on the bus?" We tell them and we write it on the board -whoever thinks of it- and we all agree. (...) And also the rules about how to behave and work in class, and what we're not supposed to do (...) -we all say it".

Given the small number of interviews carried out (55 in

total), it is not possible to analyse the differences in the representation of the teacher using statistical processes. The qualitative assessment of the change shown in Table 15 reflects a significant decrease in references to the teacher as someone that merely presents information and gives grades (Model 2), and an increase in references to the proactive teacher (Model 3), as someone that is available for helping pupils to deal with the difficulties that may arise in the process of construction of knowledge carried out by the pupils themselves. This change is of great relevance in terms of the teacher's being able to teach tolerance and solidarity. It should be borne in mind, moreover, that the transformations previously mentioned coincide with the descriptions made by teachers themselves of the changes that occur in their role.

CONCLUSIONS

The results obtained in this research allow us to draw the following conclusions:

1) *Effectiveness of the programmes for favouring tolerance.* The teachers that applied the programmes recognise as one of their most significant effects the development of tolerance in pupils. The teachers that acted as mediators also highlight their effectiveness for favouring tolerance in the teachers themselves, both towards pupils and towards their own colleagues. Teachers' perceptions of changes in tolerance shown by their pupils are found to be coherent with those detected directly through the diverse measurement procedures employed (questionnaires, interviews and sociometric techniques), which confirm once again the asymmetry of intergroup attitudes, between the majority group that has more perceived power and the minority group pupils that perceive themselves to have less power. It is important to take this symmetry into account in assessing the change occurring as a result of applying the programmes.

The results as a whole show that the main problems of intolerance and rejection are suffered by the gypsy minority. Therefore, it is not surprising that the changes produced by the intervention are especially significant in relation to this minority group. These changes vary according to age and/or the level of rejection expressed initially, and are particularly significant around the age of 8, the age at which great transformations in interpersonal comprehension normally take place.

In relation to the above, it should be taken into account that before the intervention there were also significant differences in tolerance towards the gypsy minority as a function of age –differences

that reflect, as found in other studies, an increase in tolerance from age 7 to 11, followed by a decrease. Tolerance towards foreigners also appears to undergo significant changes as a function of pupils' age, increasing up to 11 and subsequently stabilising. Why is it that intolerance towards gypsies increases in pre-adolescence, but intolerance towards foreigners does not? We do not have enough information to be able to respond adequately to this question, though the overall results obtained suggest a possible relationship between these results and the greater validity of the questions related to the gypsy minority for reflecting attitudes of intolerance.

The change in tolerance of minorities towards the majority group also appears to depend on pupils' age, and/or the previous existence of a degree of intolerance, since it is found to be especially significant in 2nd-grade children, in whom before the intervention there was observed greater reluctance to interact with the majority group.

In sum, the changes observed in pupils after the intervention reflect a significant increase in tolerance that varies according to the grade to which it is applied and/or the level of intolerance expressed initially. Changes are found to be particularly significant in relation to the gypsy minority, which initially suffered more rejection, and around the age of 8, an age at which especially relevant changes in social understanding normally take place.

2) *Identification with one's own group.* Majority group pupils express after the intervention a significantly less absolute (more relativist) identification with their own ethnic group than that which they presented before the intervention. This change may well be related to the increase in tolerance. Of the different components included in the programmes, it would appear that the incorporation of intercultural content is the most effective for helping minority group pupils to overcome the problems of identification with their own group that they tend to report before the application of the programmes.

	BEFORE	AFTER
MODEL ONE	2	1
MODEL TWO	13	6
MODEL THREE	8	16
MODEL FOUR	3	0
MODEL FIVE	3	1
MODEL SIX	0	5

Comparison of the changes observed in this variable through questionnaires and interviews suggests the appropriateness of using the latter for assessing pupils' development in relation to tolerance.

3) *Effectiveness of the intervention on relationships between classmates.* The intervention appears to have contributed to improving relationships between classmates in a general way, as well as increasing the level of social integration of minority group pupils. Taken as a whole, the changes observed through the sociometric techniques (in preferences for playing and working) reflect more significant changes in relation to the gypsy minority, due probably to the fact that the initial level of rejection towards this group was higher than that expressed towards foreigners.

4) *The process generated by co-operative learning.* The responses given by the children in the interviews show that co-operative learning is effective for favouring in pupils: the ability to co-operate, a more active role in the knowledge construction process, integration in the class group, and learning of solidarity. Teachers' responses on being asked about the significance and effectiveness of co-operative learning allow us to conclude that it is valuable for: facilitating the adaptation of teaching to the diversity of the pupils, stimulating group cohesion and developing solidarity and the ability to co-operate.

One of the main difficulties of co-operative learning, soon resolved by most teachers, concerns the need to structure the distribution of roles, with a view to sharing out in the most appropriate way the asymmetric roles within each team. Through the assessment procedure designed for the competitions, it is possible to guarantee these experiences even in conditions of extreme diversity.

When asked about the effectiveness of co-operative learning, teachers refer to processes that coincide with the characteristics of the zone of construction of knowledge (pupils' facility for explaining things to their classmates on their own level, the possibility of learning through an activity in which the objectives and the tools necessary for learning appear simultaneously...). Pupils quite frequently refer to similar processes for explaining the advantages of this procedure. Thus, we should highlight the activation of the knowledge construction zone as the process which, according to the perceptions of teachers and pupils, best permits the explanation of what occurs through the co-operative learning procedure.

Teachers believe that co-operative learning benefits all pupils, and frequently highlight the surprising changes it produces in pupils that initially had difficulties with learning or integration in the class group. They also mention cases that demonstrate the advantages it may have for pupils with no difficulties in either of these processes.

5) *Changes in the role of the teacher.* The interviews with pupils show that after the intervention the teacher's role changes, in terms of the way the children perceive it, since there is a decrease in references to the teacher as someone that merely presents information and gives grades and an increase in references to the proactive teacher, someone that is available for helping pupils to deal with the difficulties that may arise in the process of construction of knowledge carried out by the pupils themselves. This change is of great relevance in terms of the teacher's being able to teach tolerance and solidarity. Changes in the role of the teacher perceived by teachers themselves are in the same direction as the changes referred to in the pupils' interviews, thus supporting both the effectiveness of the intervention for improving this role and the validity of both measures.

6) *Knowledge of the results obtained through the assessment instruments* appears to have contributed to teachers' being more aware of the precise problems of racism and intolerance existing in their classrooms before application of the programmes, and to their becoming conscious of the impact that some of their behaviours (such as frequent criticism) may have on pupils. This consciousness, according to the teachers themselves, has contributed to improving the way they attend to diversity. The subsequent evaluation confirms the potential effectiveness of teachers' use of the assessment instruments for improving interaction with difficult pupils, forming heterogeneous groups (according to the sociometrics) and adapting the programmes to each situation.

7) *Application of the programmes in schools.* The overall results obtained allow us to conclude that the process of training in schools is ideal for favouring: collaboration between the support teacher and the class teacher within the classroom, general collaboration between teachers on how to improve the way they teach, application of the programmes throughout the school centres and their continuity after the training process.

8) *Effectiveness of joint consideration of the needs of each pupil.* The observations made during the tea-

cher training process support the need for this training to encourage joint reflection among teachers about the needs of each pupil, and especially those of pupils from certain ethnic or cultural minorities. Such consideration is highly effective for stimulating sensitivity towards pupils that require special support from teachers.

9) *Role of the teacher as mediator for teaching to resolve conflicts.* From the very first sessions teachers expressed their concern to improve the way they resolve conflicts that arise in the classroom. Previously, they would try to help resolve conflicts by giving a lesson or offering the correct solution to their pupils directly, which often proved difficult to understand or put into practice for the children. The training process appears to have improved teachers' effectiveness in this regard, bringing their role closer to that of a mediator who helps the pupils themselves to be the ones that find the solution to the problem and put it into practice, and provides experiences that permit pupils to learn solutions and reflect on them. Such effectiveness appears to have been noticed by some pupils, as shown by their responses in the interviews to questions about changes they observed.

10) *Role of the psychologist in intercultural education.* The conclusions presented above reflect the important role the psychologist may play in the whole process involved in educational innovation related to Intercultural Education. Of especial significance in this regard is their function in helping teachers to: 1) be more closely aware of each pupil, countering the negative expectations that exist in some cases (especially towards those belonging to minority groups); 2) understand the need to adapt educational interaction to the objectives of Intercultural Education and the advantages that may derive from this for all pupils; 3) distribute opportunities for protagonism in the classroom, favouring a situation whereby this is achieved on the basis of diverse cultural backgrounds; and 4) make innovations that are effective with regard to these objectives and evaluate achievements, especially when these are not particularly obvious.

REFERENCES

Allport, G. (1954). *The nature of prejudice*. Cambridge, Mass.: Addison-Wesley.
 Banks, J. and Banks, C. (Eds.) (1995). *Handbook of Research on Multicultural Education*. New York: Macmillan.
 Baraja, A. (1993). *El proceso de adaptación escolar en*

contextos interétnicos. Un modelo de intervención para reducir el prejuicio. Madrid: Universidad Complutense.

- Brophy, J., and Good, T. (1974). *Teacher-student relationships*, New-York: Rinehart and Winston.
 Díaz-Aguado, M.J. (1992). (Dir.). *Educación y desarrollo de la tolerancia*. Four volumes and a video. Madrid: Ministerio de Educación y Ciencia.
 Díaz-Aguado, M.J. (1994, a). *Niños con necesidades especiales*. Madrid: ONCE.
 Díaz-Aguado, M.J. (1994, b). *Programas para favorecer la integración escolar*. Madrid: ONCE.
 Díaz-Aguado, M.J. (1996). *Escuela y tolerancia*. Madrid: Pirámide.
 Díaz-Aguado, M.J. (1996, b). *Programas de educación para la tolerancia y prevención de la violencia en los jóvenes*. Madrid: Ministerio de Trabajo y Asuntos Sociales.
 Díaz-Aguado, M.J. and Baraja, A. (1993). *Interacción educativa y desventaja sociocultural. Un modelo de intervención para favorecer la adaptación escolar en contextos interétnicos*. Madrid: Centro de Investigación y Documentación Educativa.
 Díaz-Aguado, M.J., Martínez Arias, R. and Baraja, A. (1992, a). *Educación y desarrollo de la tolerancia. Volumen III. Investigación*. Madrid: Ministerio de Educación y Ciencia.
 Díaz-Aguado, M.J., Royo Garcia, P. and Baraja, A. (1994). *Programas para favorecer la integración escolar. Investigación*. Madrid: ONCE.
 Good, T. and Brophy, J. (1991). *Looking in classrooms*. New York: Harper Collins.
 Hertz-Lazarowitz, R. and Miller, N. (1992). *Interaction in cooperative groups*. Cambridge, Mass.: Cambridge University Press.
 House, E. (1980). *Evaluating with validity*. New York: Sage. Published in Spanish under the title: *Evaluación, ética y poder*. Madrid: Morata, 1994.
 Johnson, D. and Johnson, R. (1994). *Learning together and alone: Cooperative, competitive, and individualistic learning* (4th ed.). Boston: Allyn & Bacon
 Kohlberg, L. (1980). high school democracy and educating for a just society. En: Mosher, L. (Ed). *Moral Education*. New York: Praeger
 Parlett, M. and Hamilton, D. (1977). Evaluation as illumination: a new approach to the study of innovatory programmes. In: Hamilton, D. et al. (Eds.). *Beyond the numbers game*. London: Macmillan.
 Slavin, R. (1980). Cooperative Learning. *Review of Educational Research*. Summer, 50 (2), 315-342.
 Slavin, R. (1983). Non-cognitive outcomes of cooperative learning. *Teachers' and students' perceptions*

- (pp. 341-365). Levine and Wangs (Eds.). Hillsdale:
LEA.
- Slavin, R. (1983). *Cooperative learning*. New York:
Longman.
- Slavin, R. (1983). When does cooperative learning
increase student achievement? *Psychological
Bulletin*, 94, 429-445.
- Slavin, R. (1985). Cooperative learning: Applying con-
tact theory in desegregated school, *Journal of Social
Issues*, 4, 3, 45-61.
- Slavin, R. (1996). Research on cooperative learning and
achievement: What we know, what we need to know.
Contemporary Educational Psychology, 21, 43-69.
- Stake, R. (1978). The case study method in social
inquiry. *Educational Researcher*, 7,5-8.
- Stenhouse, L. (1985). *Research as a basis for teaching*.
London: Heinemann. Published in Spanish under the
title: *La investigación como base para la enseñanza*.
Madrid: Morata, 1987.
- Walker, R. (1980). La realización del estudio de casos en
educación: ética, teoría y procedimientos. In:
Dockrell, W., Hamilton, D., *Nuevas reflexiones sobre
la investigación educativa*. Madrid: Narcea. First
English edition: 1980.

APPENDIX: ASSESSMENT INSTRUMENTS

1) SOCIOMETRIC QUESTIONNAIRE

NAME SURNAMES

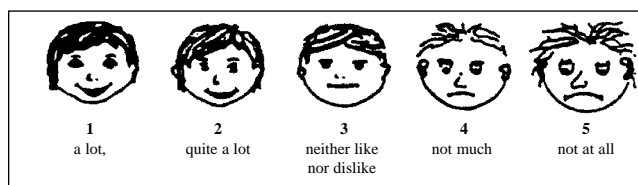
SCHOOL GRADE CLASS

1. Which three boys or girls do you most like playing with?
Why do you like playing with them?
2. Which three boys or girls do you least like playing with?
Why don't you like playing with them?

GUESS which boy or girl in your class:

3. Has most friends
4. Is the saddest
5. The teacher likes most
6. Is the happiest
7. Helps others most
8. Knows most
9. Has least friends
10. Annoys others most
11. Knows least
12. The teacher likes least
13. Who do you prefer to play with at breaktime? (circle the answer)
WITH SPANIARDS
WITH FOREIGNERS
WITH EVERYONE THE SAME
14. Who do you prefer to work with in class? (circle the answer)
WITH SPANIARDS
WITH FOREIGNERS
WITH EVERYONE THE SAME
15. Who do you prefer to play with at breaktime? (circle the answer)
WITH SPANIARDS
WITH FOREIGNERS
WITH EVERYONE THE SAME
16. Who do you prefer to work with in class? (circle the answer)
WITH SPANIARDS
WITH FOREIGNERS
WITH EVERYONE THE SAME

RANKING



1. 1 2 3 4 5	15. 1 2 3 4 5
2. 1 2 3 4 5	16. 1 2 3 4 5
3. 1 2 3 4 5	17. 1 2 3 4 5
4. 1 2 3 4 5	18. 1 2 3 4 5
5. 1 2 3 4 5	19. 1 2 3 4 5
6. 1 2 3 4 5	20. 1 2 3 4 5
7. 1 2 3 4 5	21. 1 2 3 4 5
8. 1 2 3 4 5	22. 1 2 3 4 5
9. 1 2 3 4 5	23. 1 2 3 4 5
10. 1 2 3 4 5	24. 1 2 3 4 5
11. 1 2 3 4 5	25. 1 2 3 4 5
12. 1 2 3 4 5	26. 1 2 3 4 5
13. 1 2 3 4 5	27. 1 2 3 4 5
14. 1 2 3 4 5	27. 1 2 3 4 5

4 Other scales were also presented for the groups payos-Spaniards-foreigners

2) BEHAVIOURAL DISPOSITION AND ETHNIC IDENTIFICATION SCALES⁴

Name: _____ Age: _____ Grade: _____

Below is a series of questions. Read them and circle the word according to whether you like what it says in the question a lot, quite a bit, not much or not at all.

CIRCLE ONE OF THE FOUR WORDS ON THE RIGHT:

- | | | | | |
|--|-------|-------------|----------|------------|
| 1. Would you like to invite a gypsy boy or girl to your house? | A LOT | QUITE A BIT | NOT MUCH | NOT AT ALL |
| 2. Do you like playing with gypsy children at breaktime? | A LOT | QUITE A BIT | NOT MUCH | NOT AT ALL |
| 3. Would you prefer to go to a school where all the children were payos? | A LOT | QUITE A BIT | NOT MUCH | NOT AT ALL |
| 4. Would you like to go on a school trip with gypsy children? | A LOT | QUITE A BIT | NOT MUCH | NOT AT ALL |
| 5. Would you like to tell a gypsy boy or girl a secret? | A LOT | QUITE A BIT | NOT MUCH | NOT AT ALL |
| 6. Would you like to do group work with gypsy children? | A LOT | QUITE A BIT | NOT MUCH | NOT AT ALL |
| 7. In the dining room do you like sitting next to gypsy children? | A LOT | QUITE A BIT | NOT MUCH | NOT AT ALL |
| 8. Would you like to go to a gypsy boy or girl's birthday party? | A LOT | QUITE A BIT | NOT MUCH | NOT AT ALL |
| 9. Do you like sitting next to gypsy children in class? | A LOT | QUITE A BIT | NOT MUCH | NOT AT ALL |
| 10. Would you like a gypsy boy or girl as one of your best friends? | A LOT | QUITE A BIT | NOT MUCH | NOT AT ALL |
| 11. If you could be born again, would you like to be a gypsy? | A LOT | QUITE A BIT | NOT MUCH | NOT AT ALL |
| 12. Would you like it if your parents were gypsies? | A LOT | QUITE A BIT | NOT MUCH | NOT AT ALL |
| 13. Would you prefer to have more gypsy friends than payo friends? | A LOT | QUITE A BIT | NOT MUCH | NOT AT ALL |

3) INTERVIEW WITH TEACHERS THAT APPLIED THE PROGRAMMES

On co-operative learning

1. To which grade did you apply this method?
2. Which areas, teaching units or topics did you work on in class using this method?
3. What procedure did you use for making up the work teams? What characteristics did the groups have? Were there any changes in the composition of the groups after they had begun to work with this method? Why?
4. What activities or tasks did you design for the co-operative work? What functions did the groups have? What instructions did you give to the pupils?
5. What initial changes did you notice in the pupils on using this technique?
6. What was your role as teacher?
7. How did the groups develop the activities?
8. Was it difficult to keep control in the classroom?
9. What procedure did you use to assess the work of the groups?
10. How did you assess individual work after the pupils had worked in co-operative groups?
11. Did you evaluate in any way pupils' progress in learning? Did the assessment of the co-operative work have any effect on individual grades? What effect(s)?
12. What did the pupils think of the procedure used for assessment of learning with the competitions? What did you achieve by using competitions?
13. What objectives did you achieve with this learning method?
14. Rate the effectiveness of co-operative learning for achieving the following objectives (circle one of the 7 scores for each item, bearing in mind that 1 is the minimum and 7 the maximum score):
 - Favouring integration in the learning group 1 2 3 4 5 6 7
 - Favouring learning to co-operate 1 2 3 4 5 6 7
 - Providing experiences of protagonism for all pupils 1 2 3 4 5 6 7
 - Favouring learning of the content 1 2 3 4 5 6 7
 - Favouring motivation to learn 1 2 3 4 5 6 7
 - Favouring learning to resolve conflicts 1 2 3 4 5 6 7
 - Favouring learning of responsibility 1 2 3 4 5 6 7
 - Favouring relationships between classmates 1 2 3 4 5 6 7
 - Learning to help classmates 1 2 3 4 5 6 7
 - Getting help from classmates 1 2 3 4 5 6 7
 - Favouring the development of tolerance to diversity 1 2 3 4 5 6 7

15. In general, and from the teacher's point of view, what difficulties did you observe in the application of the method? How did you resolve them?
16. What is your opinion of the possibility of pupils using their own classmates for learning content? In your experience, for what type of content can it be most useful: concepts, procedures or attitudes?
17. Which pupils do you think benefited most from the method, and why?
18. Do you think it is possible and useful to continue using the co-operative learning method in future years? Why?
19. What does "co-operative learning" mean for you?
20. How would you define "academic success"?
21. What observations or suggestions would you make about this method?

On multicultural education activities

22. With which grade and in which subject area(s) did you carry out these activities?
23. What kind of content did you work with using these activities?
24. Explain briefly the design of the activity/activities (materials, methodology, task(s), assessment, role of the teacher, instructions).
25. What results did you obtain in terms of acceptance and participation of majority and minority group pupils, motivation and learning of content? What educational objectives were facilitated by the incorporation of these intercultural activities?.
26. Did you encounter any difficulties in the development of the activities? How did you resolve them?
27. What observations or suggestions would you make about this aspect?

On assessment by means of questionnaire

28. Did you encounter any difficulties in the application of the tests? How did you resolve them?
29. What is your opinion of the different assessment instruments? Do you think they are useful for teachers? Why?
30. Which results most surprised you?
31. Have you reflected on any result in particular?
32. Did you modify your behaviour in any way as a result of this reflection?
33. What suggestions would you make?

On the teacher training mode

34. How did the need arise in your school for training teachers in co-operative learning and intercultural education?
35. What were your initial expectations about the training?
36. With regard to the different topics covered (Intercultural Education, co-operative learning, intercultural material, assessment methods...), which were most interesting, and why?
37. Which were least interesting, and why?
38. What was your impression of the way of working during the training?
39. What has proved most useful for your work?
40. Did you notice any difficulties in the course of the training? What were they? How were they resolved?
41. What suggestions would you make for improving teacher training in these methods and innovations?
42. Which aspects would you eliminate?
43. In what aspects is the contribution of the *Teachers`Centre Continnonns Training* essential? How could this contribution be improved?
44. What is your opinion of a structured programme such as the Green Box (Díaz-Aguado, Dir, 1992)? How can it be of help to you as a teacher?
45. Do you think a teacher that knows a programme such as the Green Box can work on it individually in a school with a group of pupils? What would s/he need?
46. How were the Red Boxes useful for you?
47. How do you think education can be improved? What would be necessary?